DOCUMENT RESUME

ED 152 948 UD 018 198

AUTHOR Koh, Eunsook T.; Gray, Edwina D.
TITLE Health Historical Finding Among Low Income Black Families.
SPONS AGENCY Cooperative State Research Service (DOA), Washington, D.C.
PUB DATE Feb 78
GRANT 316-15-111
NOTE 13p.; Parts of this paper were presented at the Annual Meeting of the Southern Association of Agricultural Scientists (February, 1978)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Age Differences; Demography; *Disease Rate; *Diseases; *Health Conditions; Health Facilities; Health Needs; Nutrition; *Sex Differences; *Surveys
IDENTIFIERS *Mississippi

ABSTRACT

This paper presents the findings of a survey conducted in Claiborne County, in southwest Mississippi. The survey focused on three different areas: (1) demographic data and food practices including food frequency for 1,000 households, (2) dietary intake of individuals for 250 households, and (3) nutritional evaluation by health history, clinical examination, biochemical determination, and anthropometric measurements for 400 persons in this county. This paper deals with the findings of the health history, based on interviews with a total of 304 persons aged 5 and over. Disease patterns showed sex and age differences. Most of the diseases were more prevalent in females than in males, especially beyond the age of 34. These diseases included anemia, hypertension, heart disease, obesity, and arthritis. However, some disabilities were found more frequently in males. These included fractures, major operations, work disability, peptic ulcers, liver and prostrate diseases. Asthma had the highest frequency of occurrence among children. A small percentage of the children had been treated or hospitalized for other diseases. (Author/AM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED152948

HEALTH HISTORICAL FINDING AMONG LOW INCOME BLACK FAMILIES[1]

Eunsook T. Koh[2]
and
Edwina D. Gray[3]

Alcorn State University
Lorman, Mississippi 39096

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Eunsook T. Koh
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

INTRODUCTION

Mississippi provided the crisis circumstance that has made hunger and malnutrition a current national concern (1-5). To clarify this situation among low income, black families in Mississippi, a nutrition survey was conducted in Claiborne County located in Southwest Mississippi. The study was conducted in three different areas: (1) demographic data and food practices including food frequency for 1,000 households; (2) dietary intake of individuals for 250 households; and (3) nutritional evaluation by health history, clinical examination, biochemical determination, and anthropometric measurements for 400 persons aged 0-80 in this county. This paper deals with the findings of health history.

METHODS

The total population of Claiborne County, according to 1970 Census, was 10,086. Seventy-five percent of this population was Black. Approximately 200 households were randomly selected in the black residential area for the study. A total of 400 persons aged 0-80 from 200 households were brought to the campus for an interview and examination. This paper deals only with the data of the 304 persons aged over 5.

The study was conducted May through August in 1976. Interviewers included junior and senior students majoring in Food/Nutrition and General Home Economics at Alcorn State University. All interviewers were given instruction by the school physician pertaining to the conditions and status of selected diseases and infections. Interviews were conducted on the campus when interviewees were brought there for the clinical examination. For young children, the informant was the person responsible for the child's caring, usually the mother, father, or grandparent. For subjects aged 6 through 12 usually both the parents and the child were interviewed.

The medical history form used was similar to the one used in the Ten-State Nutrition Survey (6) for children and adults. However, it was modified to adjust for local conditions. The questionnaire for children

UD018198

over age 5 and adults considered in this report included disease patterns such as infection, chronic illness and conditions for which major operations were performed or hospitalization was necessary.

A total of 304 persons aged 5 and over were interviewed regarding their health history and given a physical examination. This sample made it possible to present five age groups. These groups included ages 6-11, 12-17, 18-34, 35-60, and over 60 years. All age groups except the children aged 6-11, were subdivided according to sex. The groups of males aged 35-60 and over 60 had the smallest sample size of 8, and that of males aged 12-17 had the largest sample size of 65. The sample size of each group is presented in Table 1. Most of the data was indicated as a percent of the total sample in each age group.

RESULTS AND DISCUSSION

The percentages of historical findings for anemia, abnormal bleeding, asthma, hay fever, other allergy, tuberculosis, chronic respiratory disease, goiter, and rheumatic fever are presented in Table 1 by sex and age. Anemia is generally recognized as the greatest nutritional problem among the low income families over the world. This is true for this population. Anemia was prevalent in all age categories. However, prevalence of anemia was significantly correlated to age and sex. Anemia was prevalent more in females than in males, and more in the old than in the young. For females, 16.94 percent of the persons aged 18-34 had been treated or hospitalized for anemia; 24.31 percent for the age group 35-60; and 24.07 percent for the age group over 60. For males, a history of anemia was reported only in the two age groups 12-17 and over 60 years with 3.07 and 12.5 percent, respectively. This correlation to sex is supported by the findings in dietary intake (7) and clinical and biochemical determination of this population (8). The highest rate of abnormal bleeding was reported for females aged over 60. Post-menopausal bleeding may account for this. No history of abnormal bleeding was reported in males except in the age group 18-34 years. In children less than 2 percent reported bleeding.

For the study asthma included both bronchial and cardiac conditions. Asthma was highly prevalent in the children aged under 12 years and in females aged over 34 years. The prevalence of hay fever showed a significant age difference. A small percent of hay fever was reported for the children aged 6-11. The adolescents aged 12-17 of both sexes, and males aged 18-34 had no history of hay fever. However, in older age groups 12-25 percent of the persons reported to have a history of hay fever. Although males aged 18-34 had no history of hay fever, they had the highest rate of other allergic conditions with 16.6 percent. It was certain that hay fever and/or other allergic conditions were less prevalent in children aged 6-17 years than in adults.

Table 1: Percentage of historical findings for selected disease by age and sex.

Age	Sex	Anemia	Abnormal Bleeding	Asthma	Hay Fever	Other Allergy	Tuber-culosis	Chronic Respiratory Disease	Goiter	Rheumatic Fever
		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
*6-11	(56)[a]	1.78	1.78	10.71	3.59	7.14	0.00	0.00	0.00	0.00
12-17	F (46)	6.52	4.34	4.34	0.00	2.17	0.00	0.00	0.00	0.00
12-17	M (65)	3.07	0.00	3.06	0.00	4.60	0.00	3.07	0.00	3.07
18-34	F (60)	16.94	5.04	3.38	14.24	11.85	0.00	3.38	3.38	3.38
18-34	M (12)	0.00	8.33	0.00	0.00	16.66	0.00	0.00	0.00	0.00
35-60	F (36)	24.31	8.10	13.51	13.51	5.40	0.00	2.70	27.01	2.70
35-60	M (8)	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00
Over 60	F (13)	24.07	24.07	15.38	15.38	15.38	0.00	0.00	15.38	0.00
Over 60	M (8)	12.50	0.00	0.00	12.50	12.50	0.00	0.00	0.00	0.00
Children, Mean		1.78	1.78	10.71	3.59	7.14	0.00	0.00	0.00	0.00
Female, Mean		17.96	10.39	9.15	10.78	8.70	0.00	1.52	11.44	1.52
Male, Mean		3.89	2.08	0.77	9.38	8.44	0.00	0.77	0.00	0.77

[a] Sample Size

* The children include the age group of 6-11 years.

Tuberculosis in the United States has diminished greatly since the beginning of the century (9). Tremendous advances in prevention, detection, and treatment through drugs, surgery, and other means have tended to give the public the impression that tuberculosis is no longer a common health threat. Fortunately this is the case in this community. No one reported a history of tuberculosis.

Goiter was found to be a problem with only females beyond 17 years of age. This finding strongly supports the importance of iodine for females, especially during their reproductive period. None of the children and none of the males reported a history of goiter. The highest rate of goiter was reported among females aged 35-60, with over 27 percent. Rheumatic fever was not a common disease. It was reported in three groups: 12-17 years of the male; 18-34 years of the female; and 35-60 years of the female; around 3 percent in three groups, respectively.

Percentage of historical findings for diabetes, hypertension, heart disease, obesity, arthritis or rheumatism, fractures, malignancy, major operations and work disability are presented in Table 2. None of the children or males had been treated or hospitalized for diabetes. However, diabetes was prevalent in the older female population: 53.84 percent reported for diabetic treatment or hospitalization in the ages over 60; 13.51 percent in the ages 35-60; and 5.07 percent in the ages 18-34. Hyperglycemia based on fasting serum glucose level indicated a similar trend of age and sex. The data also indicated that the effects of age on increasing glucose level appeared to be greater in females than in males.

Hypertension was the most serious health problem in persons over age 34, especially females. The percentage of hypertension was 10.16 percent in the ages 18-34; 56.74 percent in the ages 35-60; and 92.3 percent in the ages over 60. For males no one had been treated in the age group 18-34 years. However, 37.50 percent for the ages 35-60 and 12.50 percent for the ages over 60 had been treated or hospitalized for hypertension. The blood pressure data indicated that both systolic and diastolic pressures significantly increased with age, and it was highest in the age group of 35-60 for females and in the age of over 60 for males. The mean blood pressure in these groups was much higher than the normal level, showing hypertension of 149.0/92.2 and 149.0/94.0 for females and males, respectively. In the Health and Nutrition Examination Survey, it was reported that proportionately more Blacks than Whites and more people in South than North had hypertension (10). The high prevalence of hypertension in this survey may be partially explained by the findings of the HANES.

The prevalence of obesity showed age and sex differences; more obesity in the old than the young and more obesity in females than males. The highest rate of treatment or hospitalization for obesity was found to be in females aged over 60, showing 15.38 percent. However, the rate of obesity determined by triceps skinfold thickness was 61.54 percent. According to triceps skinfold criteria, obesity was one of the major health problems in this population.

Table 2: Percentage of historical findings for selected disease by age and sex.

Age	Sex	Diabetes	Hyper-tension	Heart Disease	Obesity	Arthristic or Rheumatism	Fractures	Malig-nancy	Major Operation	Disability of Work
		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
*6-11		0.00	0.00	0.00	1.78	1.78	0.00	0.00	5.36	0.00
12-17	F	0.00	0.00	0.00	0.00	0.00	4.34	0.00	8.69	0.00
12-17	M	0.00	0.00	3.07	0.00	4.60	0.00	3.07	0.00	0.00
18-34	F	5.07	10.16	3.38	5.07	0.00	5.07	0.00	15.25	0.00
18-34	M	0.00	0.00	0.00	0.00	0.00	33.33	0.00	25.00	0.00
35-60	F	13.51	56.74	2.70	10.80	20.61	8.10	5.40	43.24	5.40
35-60	M	0.00	37.50	0.00	0.00	25.00	50.00	0.00	50.00	25.00
Over 60	F	53.84	92.30	30.76	15.38	84.61	15.38	0.00	38.46	0.00
Over 60	M	0.00	12.50	0.00	12.50	50.00	12.50	0.00	37.50	0.00
Children, Mean		0.00	0.00	0.00	1.78	1.78	0.00	0.00	5.36	0.00
Female, Mean		1.52	39.80	8.54	7.81	26.31	8.22	1.35	26.41	1.35
Male, Mean		0.77	12.50	0.77	3.13	19.90	23.96	0.77	28.13	6.25

*The Children include the age group of 6-11 years.

Coronary heart disease (CHD) is a major cause of death in the United States and it is affected by age and sex (11, 12). The present study showed the age and sex difference in the history of CHD: CHD was found more in females than in males and more in the old than in the young. The highest treatment or hospitalization for CHD was in females aged over 60 with 30.76 percent. Several investigators showed that myocardial infarctin was more likely to be fatal in males than in females among Whites, but sex difference did not exist among Blacks even before menopause. The higher prevalence of CHD in females than in males in the present study may be partially explained by racial difference and by the higher prevalence of other clinical conditions such as diabetes, obesity, hypertension as well as hypercholesterolemia in females than in males.

Arthritis or rheumatism was one of the major health problems in both males and females beyond age 34. The highest rate of arthritis or rheumatism was reported in females aged over 60. It was 84.60 percent. There was not much problem with arthritis or rheumatism in persons under 35 years of age. Fractures were likely to be more in males than in females and to be more in the old than in the young.

None of the children aged 12-17 reported having had a major operation. However, 5.36 percent of the children aged 6-11, and 8.69 percent of the female adolescents aged 12-17 had had at least one major operation. From 18 through 60 years of age males were substantially more likely than females to have undergone surgical procedures. Beyond age 60, this sex difference disappeared. However, the proportion of the old who had had a major operation was relatively high in both sexes. Work disability was reported only in one age group of 35-60 years, with 5.4 percent in females and 25.0 percent in males. None of other groups reported for work disability.

Percentages of historical findings for epilepsy, mental illness, hemorrhoids, hernia, peptic ulcer, gall bladder disease, liver disease, prostate disease, kidney stone, kidney or bladder infection are presented in Table 3. A history of epilepsy was reported only in females ages 18-34 and 35-60, with 3.38 percent and 5.40 percent, respectively. None of the children or males had a history of epilepsy. A history of mental illness was reported only in one age group 35-60 years of females.

Hemorrhoids are probably the most common condition affecting the gastrointestinal tract. There was no consistent trend with respect to age and sex for having a history of hemorrhoids. In general, a higher prevalence of hemorrhoids existed among adults than among children. However, aging had no consistent effects requiring treatment or hospitalization for hemorrhoids in this study. The highest rate of hemorrhoids was found in males aged 18-60. A history of hernia was reported only in males aged 35-60. Peptic ulcer here included both gastric and duodenal ulcer. No history of peptic ulcer was reported up to the age of 34. However, beyond age 34, peptic ulcer appeared in both sexes. Peptic ulcer was more prevalent in males in than in females. The patterns of peptic ulcer in the present study well agree with the general patterns in that it is more prevalent in males than in females, and more prevalent in the old than in the young. Gall bladder disease was reported in two age groups of females: 5.07 percent for the age group 18-34 and 7.69 percent in females and 12.50 percent in males.

Table 3: Percentage of historical findings for selected disease by age and sex.

Age	Sex	Epilepsy	Mental Illness	Hemorrhoids	Hernia	Peptic Ulcer	Gall Bladder Disease	Liver Disease	Prostate Disease	Kidney Stone	Kidney or Bladder Infection
		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
*6-11		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12-17	F	0.00	0.00	6.77	0.00	0.00	0.00	0.00	0.00	0.00	6.54
12-17	M	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.60
18-34	F	3.38	0.00	6.77	0.00	0.00	5.07	0.00	0.00	5.07	15.24
18-34	M	0.00	0.00	16.66	0.00	0.00	0.00	0.00	17.66	0.00	0.00
35-60	F	5.40	5.40	16.21	0.00	2.70	0.00	0.00	0.00	0.00	8.10
35-60	M	0.00	0.00	0.00	12.50	12.50	0.00	0.00	5.40	0.00	0.00
Over 60	F	0.00	0.00	7.69	0.00	15.38	7.69	7.69	0.00	0.00	30.76
Over 60	M	0.00	0.00	12.50	0.00	25.00	0.00	12.50	0.00	0.00	37.50
Children, Mean		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Female, Mean		2.20	1.35	9.36	0.00	4.52	3.87	1.92	1.35	1.27	15.15
Male, Mean		0.00	0.00	7.29	3.13	9.38	0.00	3.13	4.42	0.00	10.53

*The children include the age group of 6-11 years.

The prostate gland is an accessory of the male sex glands and of structures intimately associated with the urinary tract. Prostatitis, an infection of the prostate gland is quite common. Prostatitis in younger men is more likely to be specific. Prostate diseases which needed treatment or hospitalization were highest in young adults aged 18-34 with 17.66 percent. In the age group of 35-60, 5.40 percent reported this disease. A history of kidney stone was reported in 5.07 percent of the young female adults. Kidney and bladder infections were significantly higher among the old. It was the highest in the age group over 60 in both males and females.

Most of the diseases were prevalent in females than in males, especially beyond age 34. Those diseases are anemia, abnormal bleeding, chronic respiratory disease, goiter, diabetes, hypertension, heart disease, obesity, and arthritis or rheumatism. The high prevalence of disease in females aged over 34 correlated well with the clinical conditions found by biochemical and anthropometric measurements. A small percentage or none of the children had been treated or hospitalized for any disease except asthma. Asthma was most prevalent in children. Fractures, major operations, work disability, peptic ulcer, liver, and prostate diseases were found more in males than in females.

The major health problems are anemia, abnormal bleeding, allergy, diabetes, hypertension, obesity, and arthritis. Among these, hypertension was the most serious problem beyond age 34 years in both sexes. A relatively high percent of the population has had a major operation. All diseases were highly prevalent in the old and were found more in females than in males.

SUMMARY

The total population of Claiborne County, according to 1970 Census, was 10,086. Seventy-five percent of this population was Black. Approximately 200 households were randomly selected in the black residential area. A total of 304 persons aged over 5 were interviewed with respect to their health history and given a medical examination. Disease patterns showed a sex and age difference. Most of the diseases were more prevalent in females than in males, especially beyond the age 34 years. Such diseases are anemia, abnormal bleeding, hypertension, heart disease, obesity, and arthritis. However, some diseases were more likely in males. Those included fractures, major operation, work disability, peptic ulcer, liver and prostate diseases. Asthma was the disease highest among children. A small percentage or none of the children had been treated or hospitalized for other diseases.

ACKNOWLEDGEMENTS

[1]Supported in part by Grant No. 316-15-111 from the Cooperative State Research Services USDA. Washington, D. C.

[1]Presented in part at the 1978 Annual Meeting of Rural Sociology Section, Southern Association of Agricultural Scientists, February, 1978.

[2]Associate Professor of Food and Nutrition, Alcorn State University, Lorman, Mississippi 39096.

[3]Research Technician, Alcorn State University, Lorman, Mississippi 39096.

*The encouragement and support of Dr. Frank Lowenstein (staff members of Division Health Examination Statistics National Center for Health Statistics) are gratefully acknowledged.

*The authors wish to thank Dr. Jesse A. Morris, Research Coordinator, CSRS Program, for his guidance throughout the project.

REFERENCES

(1) Hunger. U. S. A. Citizen Board of Inquiry into Hunger and Malnutrition in the United States. Washington, D.C., 1968.

(2) Briggs, G.M. Editorial: "Hunger and Malnutrition" J. Nutrition Education: 1:4. Winter 1970.

(3) Shuck, C., and Tartt, J.: Food Consumption of Low Income Rural Negro Households in Mississippi. Journal of American Dietetic Association 62:51, 1973.

(4) Owen, G.M. and Kram, R.N.: Nutritional Status of Preschool Children in Mississippi. Food Sources of Nutrients in the Diets. Journal of American Dietetic Association 54:490, 1969.

(5) Owen, G.M., Garry, P.J., Kram, K.M., Nelson, C.E., and Montalvo, J. M.: Nutritional Status of Mississippi Preschool Children. A Pilot Study. American Journal of Clinical Nutrition 22:1444, 1969.

(6) Center for Disease Control: "Ten -State Nutrition Survey in the United States", 1968-1970. I - Historical Development, IV - Demographic Data, DHEW Publication No. (HSM) 72-8130; III - Clinical, Anthropometry, Dental DHEW Publication No. (HSM) 72-8131; IV - Biochemical, DHEW Publication No. (HSM) 72-8132; V - Dietary, DHEW Publication No. (HSM) 72-8133; Highlights, DHEW Publication No. (HSM) 72-8134, Atlanta, Ga., Health Services and Mental Health Administration, 1972.

(7) Koh, E. T. and Caples, V. Nutrition Survey of Black Families in Claiborne County of Southwest Mississippi: I. Food Practices and Dietary Intakes, 1973-1974. Research Bullentin No. 5 Department of Home Economics, Alcorn State Universtiy, Lorman, Mississippi, 1977.

(8) Koh, E. T. Nutrition Survey of Black Families in Claiborne County of Southwest Mississippi: II. Health History, Clinical, and Biochemical Evaluation. Research Bullentin No. 6. Department of Home Economics, Alcorn State University, Lorman, Mississippi, 1978 (in press).

(9) Donald, G. Cooley. Family Medical Guide. Meredith Corporation, New York: 1976, p. 216.

(10) National Center for Health Statistics: Advanced Data; Hypertension; United States, 1974. Vital and Health Statistics U. S. DHEW, PHS, HRA 77-1250 No. 1. Rockville, Maryland 1976.